

### REMARKS

Reconsideration and allowance of the application are respectfully requested in light of the above amendments and the following remarks.

Claims 1-12 have been canceled in favor of new claims 13-26. Support for the subject matter of the new claims is provided at least in the original claims and paragraph [0028] of the specification.

Claims 1-4 and 7-12 were rejected, under 35 USC §103(a), as being unpatentable over Nobukiyo et al. (US 6,993,294) in view of Toshimitsu (US 6,735,256). Claims 5 and 6 were rejected, under 35 USC §103(a), as being unpatentable over Nobukiyo in view of Toshimitsu and Bae et al. (US 5,832,387). To the extent the rejections may be deemed applicable to new claims 13-26, the Applicant respectfully traverses based on the points set forth below.

Claim 13 defines a multicarrier communication apparatus that determines a feedback information carrier number in accordance with the reception quality of a multicarrier signal. Dependent claim 14 recites that the determined feedback information carrier is the one having the best measured reception quality among the carriers of the received multicarrier signal. These claimed features provide an advantage of suppressing interference of the

feedback information by other channels and improving channel capacity.

By contrast to the above-noted claimed subject matter, Toshimitsu discloses a terminal station that selects, when an error is detected in a received packet,  $L$  subcarriers among  $M$  subcarriers maps NAK signals onto the selected  $L$  subcarriers for transmission (see Toshimitsu, col. 4, line 43, through col. 5, line 2, and col. 8, lines 34-42).  $M$  defines the number of subcarriers usable for generating the NAK signal and may be set to  $N$  which is the total number of sub-carriers constituting the OFDM symbol but preferably  $M$  is set as low as possible.  $L$  may be set to 1.  $M$  is finally determined by the base station, while  $L$  may be determined by the base station or the mobile unit.

Toshimitsu discloses a base station that compares the reception level of the NAK signals mapped on the  $L$  subcarriers with a threshold  $T$  and retransmits only a packet corresponding to a NAK signal having a higher reception level than the threshold  $T$  (see col. 7, lines 15-40, and col. 8, lines 16-33 and 48-53).

Thus, Toshimitsu suggests determining  $L$  subcarriers among  $M$  usable subcarriers as feedback information carriers. Additionally, Toshimitsu discloses increasing the value of  $L$  when packet reception properties (e.g., error ratio properties) are

satisfactory and decreasing the value of L when packet reception properties are deteriorated (see col. 6, lines 17-24).

Toshimitsu discloses three methods of selecting the L subcarriers: (1) the subcarriers may be selected at random for every use, (2) they may be selected at random only at communication start and subsequently remain fixed, and (3) they may be selected among fixed subcarriers (see col. 4, lines 58-65). In Toshimitsu, the number M of sub-carriers able to be utilized to generate the NAK signal and the number L of sub-carriers necessary for generating the NAK signal are determined based on the number of terminal stations, packet communication quality, and the like; this enables both an erroneous detection probability and detection miss probability of the NAK signal to be lowered.

In summary, Toshimitsu discloses changing only the number, L, of subcarriers to be selected, according to reception characteristics. Toshimitsu fails to disclose determining the positions (i.e., subcarrier numbers) of the L subcarriers within the M subcarriers according to reception characteristics. Thus, Toshimitsu fails to teach or suggest the feature recited in claim 13 of determining the feedback information carrier number in accordance with reception quality.

Moreover, Toshimitsu fails to disclose that the L subcarriers include a subcarrier having the best reception quality among the M subcarriers. Thus, Toshimitsu fails to teach or suggest the feature recited in claim 14 of determining a carrier having the best reception quality among a plurality of carriers as a feedback information carrier.

The office action does not allege that Nobukiyo and Bae supplement the teachings of Toshimitsu with regard to the above-mentioned features distinguishing claims 13 and 14 from Toshimitsu.

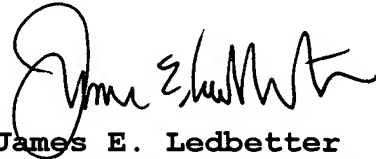
Accordingly, the Applicant submits that Nobukiyo, Toshimitsu, and Bae, considered individually or in combination, do not render obvious the subject matter defined by claims 13 and 14. Independent claim 25 and dependent claim 26 are method claims corresponding to the subject matter of apparatus claims 13 and 14. Therefore, allowance of claims 13, 14, 25, and 26 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone

the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James E. Ledbetter". The signature is fluid and cursive, with the first name "James" being more prominent.

James E. Ledbetter  
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Date: June 7, 2007  
JEL/DWW/att

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